

T. CRUZI-DERIVED NEUROTROPHIC AGENTS AND METHODS OF USE
THEREFOR

ABSTRACT OF THE DISCLOSURE

The invention relates to *T. cruzi* trans-sialidase (TS) and to the neurotrophic and
5 IL-6 secretion-inducing activities of the protein. TS, neurotrophic variants and/or
neurotrophic peptides based upon the sequence of TS can be administered to a mammal
to directly or indirectly provide neurotrophic support for neurons. A mammalian
neurotrophic factor (e.g., CNTF, LIF) can be co-administered with the TS, neurotrophic
variant and/or neurotrophic peptide. TS, IL-6 secretion-inducing variants and/or IL-6
10 secretion-inducing peptides based upon the sequence of TS can be administered to a
mammal to induce the secretion of IL-6. TS, active variants and/or active peptides can
be administered to a mammal having an acquired or congenital condition characterized
by neuronal degeneration or to a mammal that has experienced trauma to the brain,
spinal cord or peripheral nerves. The invention also relates to neurotrophic and IL-6
15 secretion-inducing variants of TS and to neurotrophic and IL-6 secretion-inducing
peptides. The invention also relates to compositions comprising TS, active variants
thereof and/or active peptides and a physiologically acceptable carrier.